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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,036

10/13/2004

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EXAMINER

GISHNOCK, NIKOLAI A

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

08/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,036

Applicant(s)

CHEPAITIS, ANDREW

Examiner

Nikolai A. Gishnock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 11/3/2004.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 9, 10, 13-16, 24, 25, 28-31, 38-41, 50-53, & 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis (US 4,737,108), hereinafter known as Chepaitis '108, in view of Desrosiers (US 6,057,858), hereinafter known as Desrosiers.

5. Chepaitis '108 teaches a font comprising a plurality of alphabetic symbols corresponding to the letters of the Roman alphabet, the alphabetic symbols being grouped divided into first, second, third, and fourth regions, the first and third regions having circular frames and the

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second and fourth regions having square frames (2:7-20), wherein: each of the alphabetic symbols embodies at least a physical association with its corresponding capital letter of the Roman alphabet (2:3-6). What Chepaitis '108 fails to teach is a dynamic font [Claim 1], and a process of changing a font [Claim 31], wherein each of the alphabetic symbols changes shape according to font size, holding certain font attributes constant while varying other font attributes as font size changes [Claims 1 & 31]. However, Desrosiers teaches a dynamic font, which is scalable, i.e., used to render characters in multiple sizes and resolutions, and having one or more types of embedded color scheme data used in conjunction with embedded transformation data, such as color scheme data and/or character shape data (5:18-30). Desrosiers also teaches a method of rendering a character by utilizing the dynamic font characteristics (7:10-13). In this case, the transformation data comprises descriptions for transforming the shapes and colors of the characters as they are scaled (6:41-60). Desrosiers also teaches where certain font attributes (such as a character code) are held constant, while other attributes (such as character shapes or colors) are varied as font size changes (entries in parameters may be accessible as a function of character code; entries in the parameters section reference information may contain specifications of transformation of one or more elements in the MCF {font}, 19:48-20:7; also, algorithms for deriving shapes by altering shapes to provide renditions of characters in angled presentation and deriving colors by interpolating colors, 20:23-35; see also the Abstract). Additionally, Desrosiers teaches a multiple media font which can be used as a tactile font, for outputting textures and shapes in more than two dimensions (7:47-8:8), and using additional three-dimensional font information, such as texture arrays, specifying shapes and texture (31:44-54). Transformation character data as taught by Desrosiers are understood to be dependent on other character data, such as scale, while other character data, such as texture, audio, or fragrance are not. The character data parameters and transformations by

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shape, scale, or color would be used to augment the font of Chepaitis '108. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the dynamic, scalable transformations of Desrosiers in the font taught by Chepaitis '108, in order to allow a character font to carry embedded information corresponding to color or shape, such as for providing three-dimensional molds for industrial use [Claims 1 & 31].

6. Chepaitis '108 teaches a plurality of numeric symbols have diamond-shaped frames (2:20-23) [Claims 16 & 41].

7. Chepaitis '108 teaches wherein uppercase alphabetic symbols are differentiated from lowercase alphabetic symbols by using the frame alone or in combination with the interior portion of the symbol, such as by a symbol with a double frame (2:29-34). What Chepaitis '108 further fails to teach is differentiating uppercase from lowercase by the presence of a dot centrally located above the frames of the lowercase alphabetic and numeric symbols [Claims 9, 24, 50, & 51]. However, Applicant has not disclosed that having a centrally located dot indicating uppercase or Capital letters solves any stated problem or is for any particular purpose.

Moreover, it appears that the double frame of Chepaitis '108 or the Applicant's instant invention would perform equally well for indicating a tactile Capital letter. Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Chepaitis '108 such that a lowercase symbol with the presence of a centrally located dot above the frame indicated the uppercase version of the symbol, because such a modification would have been considered a mere design consideration, which fails to patentably distinguish over Chepaitis '108 [Claims 9, 24, 50, & 51].

8. Chepaitis '108 teaches wherein the square frames have small points at the top corners to differentiate them from circular frames (Figures 1 & 2; the square frames have small points at the top corners, but the circular frames have no points or corners) [Claims 10, 25, 52, & 53].

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9. What Chepaitis '108 further fails to teach is wherein the alphabetic and numeric symbols are printed or displayed using a combination of colors [Claims 13, 28, 38, & 56]. However, Desrosiers teaches rendering scalable characters in one or more colors, shades, intensities, and transparencies (6:41-60). The methods taught by Desrosiers would be used to render the font of Chepaitis '108. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have displayed the font taught by Chepaitis '108 in a combination of colors, as taught by Desrosiers, in order to render characters in an eye-catching manner, as is commonly seen in advertising, packaging, and signage [Claims 13, 28, 38, & 56].

10. Chepaitis '108 teaches wherein the alphabetic and numeric symbols are tactile (a tactile code, 2:60-61) [Claim 14, 29, 39, & 57].

11. Chepaitis '108 teaches wherein the alphabetic and numeric symbols are embossed on a surface using a tactile printing medium (symbols are embossed on a heavy grade of paper, 2:63-67) [Claim 15, 30, 40, & 58].

12. Claims 2-4, 6-8, 17-23, 32-36, & 42-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis '108, in view of Desrosiers, as applied to claims 1, 16, 31, & 41 above, and further in view of Jeffrey, Alan. *A Postscript Font Installation Package Written in TeX*. University of Sussex, Brighton, UK, TUGboat, The Communications of the TeX Users Group, Volume 14 (October 1993), No. 3. p. 285-292, hereinafter known as Jeffrey.

13. Chepaitis '108 and Desrosiers teach all the features as demonstrated above in the rejection of claims 1, 16, 31, & 41. Desrosiers teaches holding certain font attributes constant while varying other font attributes as font size changes (19:48-20:7). What Chepaitis '108 and Desrosiers fail to explicitly teach is wherein spacing between the alphabetic and numeric symbols changes by a non-constant ratio as the font size changes [Claims 2, 17, 32, & 42], or

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wherein the line width of the alphabetic and numeric symbols changes by a non-constant ratio as the font size changes [Claims 3, 18, 33, & 43]. However, Jeffrey teaches a font package, incorporating the \lkern, \rkern, \scale, and \lrkern commands, provided to scale the kerning of characters (p. 288, column 1, line 27 to column 2, line 9). Kerning is understood to be the adjustment of space between character pairs. Because the kerning scale is adjustable, it is non-constant. The kerning is also a ratio of the space size to the character size ('t' should kern 85% as much as 'T'). Altering the kerning scale of the font would also change the line width, because as space between the characters is removed, the total space occupied by a line decreases. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the kerning adjustment of the font of Jeffrey, with the means to adjust the kerning as font size changes of Desrosiers, in the font of Chepaitis '108, in order to customize the font encodings for applications [Claims 2, 3, 17, 18, 32, 33, 42, & 43].

14. What Chepaitis '108 and Desrosiers further fail to explicitly teach is wherein the shape of the alphabetic and numeric symbol changes as the font size changes [Claims 20 & 45].

However, Jeffrey teaches the use of the \afmunits, \fontdimens, and \ligature commands (Installing a New Encoding, p. 287, Column 1, Line 28 through p. 288, Column 1, Line 26) for generating fonts of various sizes (Usage, p. 285, Column 2, lines 10-12), which contain information related to the font dimension parameters. These commands would be used to change the shape of the font of Chepaitis '108, as the scale changes, as taught by Desrosiers. Ligatures especially are used to make particular combinations of letters look cleaner and more visible at large point sizes. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to change the shape of the font symbols of Chepaitis '108, using the commands of Jeffrey, in light of the transforms of Desrosiers, in order to customize the font encoding for applications [Claims 20 & 45].

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15. What Chepaitis '108 and Desrosiers fail to explicitly teach is wherein at least some of the alphabetic symbols and numeric include elements within the frames, and wherein the locations of at least some of the elements of the alphabetic or numeric symbols change by non-constant ratios as the font size changes [Claims 4, 19, 34, & 44], wherein at least some of the alphabetic and numeric symbols include elements within the frames at some font sizes but not at other font sizes [Claims 6, 21, 46, & 47], wherein at least some of the alphabetic and numeric symbols include elements within the frames, and wherein the sizes of the elements can vary in different, non-constant proportions to each other as the font size changes [Claims 7, 22, 35, & 48], or wherein at least some of the alphabetic and numeric symbols include elements within the frames, and wherein at one font size, the location of the elements within the frames depends upon the location of the alphabetic and numeric symbol on a display screen [Claims 8, 23, 36, & 49]. However, Jeffrey teaches the use of the `\vchar`, `\defchar`, `\getchar`, `\map`, and `\missingchar` commands (Installing a New Encoding, p. 287, Column 2, Lines 20 – 49 & p. 288, Column 2, Lines 10 through 49), for generating fonts using multiple elements. The macros defined by `\defchar` would be used along with the previously demonstrated sizing commands to define the elements' locations, sizes, and presence inside the frame at a given font size. Further, the `\startfont`, `\stopfont`, and `\boundarychar` commands would define the element's locations, sizes, and presence depending on the symbols' location on the screen at the beginning or end of a string of symbols. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the commands of Jeffrey to change the locations, sizes, and presence of elements by non-constant ratios, depending on the font size or location on the display screen, in the font of Chepaitis '108, in light of the teachings of Desrosiers, in order to customize the font encoding for software applications [Claims 4, 6-8, 19, 21-23, 34-36, 44, & 46-49].

16. Claims 11, 26, & 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis '108, in view of Desrosiers, as applied to claims 1, 16, & 31 above, and further in view of Fujisawa et al. (US 4,654,873), hereinafter known as Fujisawa.

17. Chepaitis '108 and Desrosiers teach all the features as demonstrated above in the rejection of claims 1, 16, & 31. What Chepaitis '108 and Desrosiers fail to teach is wherein the frames of some of the alphabetic symbols have gaps therein [Claims 11, 26, & 54]. However, Fujisawa teaches writing characters in square frames, which have gaps therein (Figures 1a, 1b, 2a, and 2b). The gapped frames of Fujisawa would be used to segment the characters of a word in the font. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have alphabetic or numerical symbols with gaps therein, as taught by Fujisawa, in the font of Chepaitis '108, in light of the teachings of Desrosiers, in order to write the characters in a relaxed style [Claims 11, 26, & 54].

18. Claims 12, 27, 37, & 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chepaitis '108, in view of Desrosiers as applied to claims 1, 16, 31, & 41 above, and further in view of Prince et al. (US 6,568,938 B1), hereinafter known as Prince.

19. Chepaitis '108 and Desrosiers teach all the features as demonstrated above in the rejection of claims 1, 16, 31, & 41. What Chepaitis '108 and Desrosiers fail to teach is wherein some portions of the alphabetic and numeric symbols are printed in colored ink and other portions are printed in non-colored ink to emphasize the physical association with their corresponding capital letter of the Roman alphabet [Claims 12, 27, 37, & 55]. However, Prince teaches a printed drawing aid comprising image guide frames, which can be printed using white titanium-dioxide ink (5:43-51). The frames of Prince would be printed in a white color to

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delineate the font characters of Chepaitis '108. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have printed the frames of Chepaitis '108 in a non-colored ink, as taught by Prince, and in light of the teachings of Desrosiers, in order to guide and grid an image pattern [Claims 12, 27, 37, & 55].

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lawrance et al. (US 5,636,565) discloses a method and apparatus for embossing a Braille number denomination onto a currency bill, where the number is framed with a circle. Tillman, Sr. (US 5,971,761) discloses an educational electronic mat having alphanumeric symbols surrounded by circular frames. Nakayama et al. (US 5,802,532) discloses a method of kerning characters such that a pair of characters does not overlap.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is 571-272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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8/6/2007

Ronald Laneau

Ronald Laneau
Primary Examiner
Art Unit 3714

8/14/07